



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,146	07/13/2006	Raymond Joseph Elisabeth Habets	NL040071	6749
24737	7590	04/30/2009	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS			BITAR, NANCY	
P.O. BOX 3001			ART UNIT	PAPER NUMBER
BRIARCLIFF MANOR, NY 10510			2624	
MAIL DATE	DELIVERY MODE			
04/30/2009	PAPER			

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/597,146	HABETS, RAYMOND JOSEPH ELISABETH	
	Examiner	Art Unit	
	NANCY BITAR	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 07 January 1009.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-14 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 07 January 2009 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____ .	6) <input type="checkbox"/> Other: _____ .

DETAILED ACTION

Response to Arguments

1. Applicant's response to the last Office Action, filed 10/07/2008, has been entered and made of record.
2. Applicant has amended claims 8 and 9. Claims 1-14 are currently pending.
3. Applicant arguments filed 01/07/2009 have been fully considered but they are not persuasive.
4. Applicant argues that Dewaele fails to teach the limitation "removably attaching at least one dynamic measurement object bases on said measurement data to said graphic object as recited in claim 1 and said attachment is removable . Additionally the applicant argues that Dewaele does not describe a method wherein a dynamic measurement object is attached to a graphic object.
5. In response, figure 2 shows the graphic on the medical image comprises at least one graphic object. Dewaele teaches in paragraph [0062] that measurement points are mapped (attached) prior to generating the measurement objects that depend on them .All measurement objects are highlighted on the digital sketch upon which a copy of the object is generated and the user is requested to drag and adjust the copy to its corresponding position in the actual radiographic image and when all measurement points are available the depending measurement objects are generated and the result is computed. Therefore, Dewaele clearly teaches attaching at least one dynamic object based on said measurement data to said graphic object. Moreover, Dewaele teaches that the measurement points or data can be modified (removably) since when a user wrongly attaches the dynamic measurement object bases on said measurement data, he/she may reposition or remove the points without affecting the rest of the procedure. Note that Dewaele paragraphs [0050-0072] teaches all the different user interaction for

producing measurement data related to graphics .All remaining arguments are reliant on the aforementioned and addressed arguments and thus are considered to be wholly addressed herein.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 1 is rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. The Federal Circuit¹, relying upon Supreme Court precedent², has indicated that a statutory “process” under 35 U.S.C. 101 must (1) be tied to a particular machine or apparatus, or (2) transform a particular article to a different state or thing. This is referred to as the “machine or transformation test”, whereby the recitation of a particular machine or transformation of an article must impose meaningful limits on the claim's scope to impart patent-eligibility (See *Benson*, 409 U.S. at 71-72), and the involvement of the machine or transformation in the claimed process must not merely be insignificant extra-solution activity (See *Flook*, 437 U.S. at 590”). While the instant claim(s) recite a method for processing a user interaction including a series of steps or acts to be performed, the claim(s) neither transform an article nor are positively tied to a particular machine that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

¹ *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

² *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

NOTE: Regarding the rejection of claim 1, please see the Memorandum dated May 15, 2008, "Clarification of Processes under 35 USC § 101" which may be viewed at the following web address:

http://www.uspto.gov/web/offices/pac/dapp/opla/preognitice/section101_05152008.pdf

Examiner Notes

7. Examiner cites particular columns and line numbers in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that, in preparing responses, the applicant fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-14 are rejected under 35 U.S.C. 102 (b) as being anticipated by Plet ET al (EP 1349098).

As to claim 1, Plet et al teaches a method of processing user interaction in a medical environment with a medical image for producing measurement data related to graphics on the medical image, wherein the graphics on the medical image comprises at least one graphic object (figure 2, paragraph [0095-0098]), said method comprising the step of removably attaching at least one dynamic measurement object based on said measurement data to said graphic object (In one embodiment, all user-requested measurement points are mapped prior to generating the measurement objects that depend on them. All measurement objects are highlighted on the digital sketch upon which a copy of the object is generated and the user is requested to drag and adjust the copy to its corresponding position in the actual radiographic image. When all measurement points are available, the depending measurement objects are generated and the result of the measurement operators is computed, paragraph [0062]).

As to claim 2, Plet et al teaches the method according to claim 1, wherein the user interaction is cursor controlled and the medical image is displayed on a medical examination apparatus (display, figure 1, the enhanced placement mode is achieved by hinting the user as to the position of a constituent point of a measurement object by confining the placement to a set of points or objects defined by the graphical construction defined so far. These set of geometric objects are called the geometric loci of a geometric problem, paragraph [0068-0074]).

As to claim 3, Plet et al teaches the method according to claim 1, wherein said graphic object being associated with at least one anatomical structural element of medical objects on said medical image (In this representation the anatomy is schematically depicted as a collection of outlines of bone and other radiologically well-manifested landmarks. The measurement objects are drawn superimposed onto the anatomical outlines, paragraph [0045]).

As to claim 4, Plet et al teaches the method according to claim 1, wherein the measurement data is derived from said graphic object (paragraph [0054-0055]).

As to claim 5, Plet et al teaches the method according to claim 4, wherein the graphic object is a point, a line, a curve, two intersecting lines, or a contour (line, circle, ellipse, analytic curve, paragraph [0050]).

As to claim 6, Plet et al teaches the method according to claim 4, wherein the measurement data that is extracted from the graphics object is a line length, a curve length, an angle delimited by two intersecting lines, an area delimited by a contour or a profile along a line or a curve, a diameter, a perimeter, an area, a volume, or grey value profiles (figure 3; pure measurement operation and arithmetic measurement operations, paragraph [0050-0053]).

As to claim 7, Plet et al teaches the method according to claim 1, wherein the measurement objects are moved between or interconnect different graphics objects supporting the same measurement type, or transferred between different positions of a single graphics object (figure 3, paragraph 0127]).

As to claim 8, Plet et al teaches the method according to claim 7, wherein the graphics object is a line or a curve (paragraph [0050-0051]; note that Curves in 2D and surfaces in 3D with a more complex shape may be described by piecewise polynomial subdivisions of a desired object shape, each of the curve segments defined by a control polygon and a basis of interpolating blending functions to establish the relationship between the curve and the control polygon. The control polygon for cubic splines consist of 4 points which may either be defined by methods outlined above, or may be derived on the basis of least-squares fitting. Of particular

interest is the approximation of an object shape in the image with a fitting Bzier or spline shape based on the edge points of the object. Distance of an open-ended curve may be computed as the curvilinear path length defined as the path length integral between 2 points lying on the curve.

An angle between two lines tangent to the curve at a two points, may likewise be calculated based on the derivatives of the curve's analytic function). Moreover, Pet et al teaches, derived points are the result of geometrical calculation based on available graphical objects. Examples are the intersection of two lines, the intersection of a line and the perpendicular of a line through a given point etc. The procedures to locate a certain point as a geometric locus are defined in the methods of the point class, paragraph [0048]).

As to claim 9, Plet et al teaches the method according to claim 1 comprising smartly docking the measurement object to a nearest one of a set of graphic objects supporting a specific measurement associated with that measurement object. (paragraph [0045]; Setting snap to lines or other graphical entities has a similar effect: e.g. the line tangent to a circle (there are two such lines) through a given point is selected when moving the cursor nearest towards the intended tangent point, and a mouse click will teleport the cursor onto that tangent point on the circle, after which drawing of the tangent line completes the drawing of the line measurement object, paragraph [0071]).

As to claim 10, Pet et al teaches the method according to claim 9, comprising docking a smart length measurement object to any graphical object in the image that supports measuring its length, docking a smart distance measurement object to the two nearest graphic objects supporting a distance measurement, docking a smart diameter measurement object to contours,

Art Unit: 2624

circles, spheres, tubes, or docking a smart angle measurement object to the nearest graphic objects supporting an angle measurement (paragraph [0050-0052]).

As to claim 11, Pet et al teaches the method according to claim 10, wherein the contours, circles, spheres, tubes are graphic elements visualizing vessels, the trachea, the esophagus, or other hollow anatomical structural elements on said medical image (paragraph [0050]; figure 3, note that claim 3 teaches a method wherein at least one of said calibrated values, uncertainty values, normative values and degrees of abnormality are visualized.)

The limitation of claims 12-14 has been addressed.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NANCY BITAR whose telephone number is (571)270-1041. The examiner can normally be reached on Mon-Fri (7:30a.m. to 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vikkram Bali can be reached on 571-272-7415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nancy Bitar/
Examiner, Art Unit 2624

**/Vikkram Bali/
Supervisory Patent Examiner, Art Unit 2624**